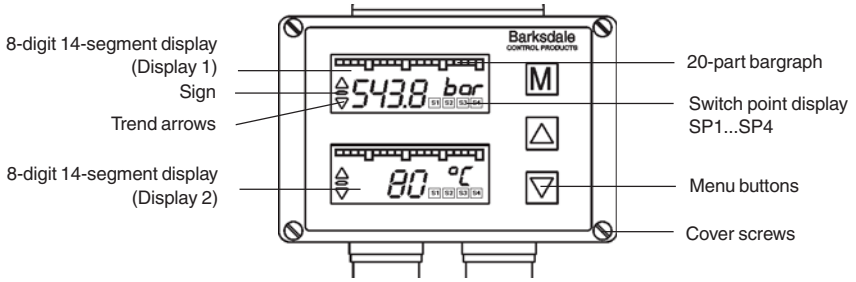
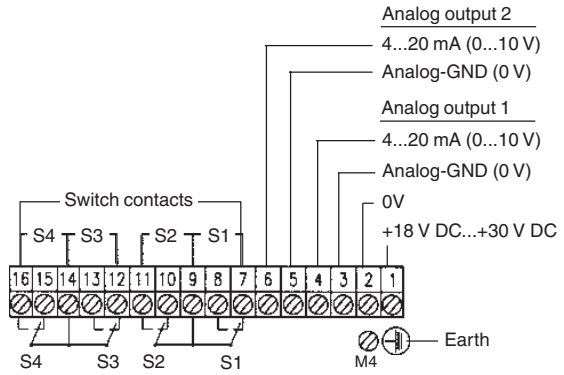
3. Operating elements



Electrical connection



Sensor connection

Plug DIN 43650 3-pin + PE Analog input No. 1 and 2	Current input 4...20 mA (2-wire)	Current / voltage input 0...10 V, 0...20 mA (3-wire)
Pin 1	+Ub	+Ub
Pin 2	---	–Ub
Pin 3	Signal	Signal
Earth	PE	PE

(In combination with 2-wire circuit pin 2 is not required)

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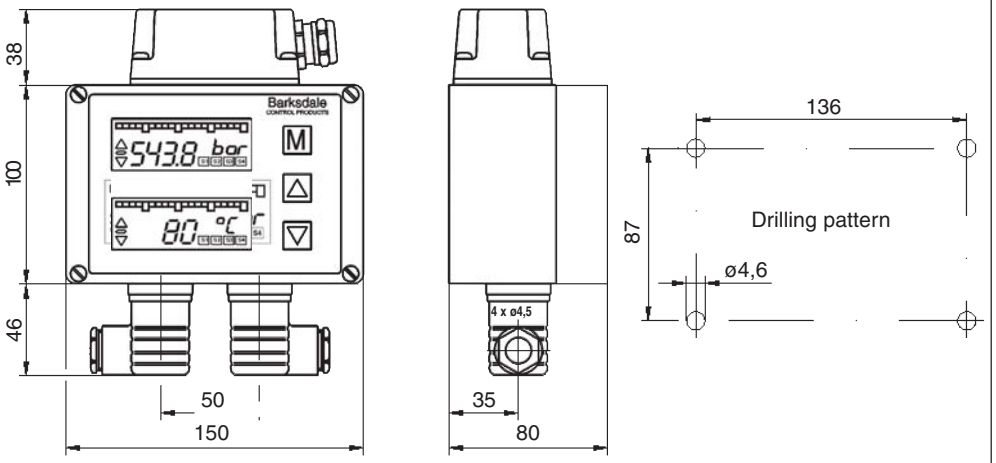
Item-Nr.: 923-1280
Rev. --, 26. 06. 2004

Specifications are subject to changes without notice.

Operating Instructions 4-fold Trip Amplifier UAD 3 - V3

Dimensions (in mm)

UAD 3 - V3



1. Product description

Intended applications
- The trip amplifier is only to be connected to input signals according to the values on the type label at the bottom side of the device.

2. Starting operations

- The pressure switch should be installed and operated only by authorized personel.
- Cover and bottom of the device form a function unit. Exchanging the parts can cause measuring errors or malfunctionning. For wall mounting remove the four front cover screws and the front cover. Then fasten the device with four screws to the wall and finally remount the front cover. To damp strong vibrations shock mounts must be used.
- Connect the sensor to the (3-pin + PE) cube plug at the bottom side of the UAD 3 - V3.
- The electrical connection (supply, analog output switching contacts) must be carried out according to the connection tables depicted on the top of the device by removing the cover cap and insert the cable through the cable gland PG 13,5. If required, additional cable glands can be installed in the cover cap by breaking out the perforated cavities.
- The electrical connection must be carried out in accordance with the VDE 0100 regulations. In order to ensure trouble-free operation it is essential to connect the protective lead.
- If inductive loads (magnets, contactors, etc.) are connected to the switch relays, suitable protective devices (varistors etc.) must be provided.

List of functions UAD 3 - V3

Main Menu	Sub Menu	Value	Description
Measur. mode	....	....	**Display of the actually measured value and the measuring unit**
MENU			**Display keylock**
		UNLK	No keylock, all parameters can be adjusted
		LOCK	Keylock active, all parameters visibal but can not be changed
SP1...SP4			**Switch point menu SP1..SP4**
	MODE	STND	Standard evaluation (rising/falling)
		WIND	Window technology
		ERRO	Error output
	ON	....	Switch-on value for SP1...SP4; if the ON-value is smaller than the OFF-value, the switch evaluatiuon is falling
	OFF	....	Switch-off value SP1...SP4
	LEV		Inversion of the switching output
		HLFS	High-level-fail-safe (Normally Open function)
		LLFS	Low-level-fail-safe ((Normally Closed function)
	DEL	0,0s..9,9 s	Switch-on / switch-off delay for SP1...SP4 in seconds
	SPSC	DSP1	Switch point reacts on display values of display 1
		DSP2	Switch point reacts on display values of display 2
ANO1...ANO2			**Analog output menu**
	ANOP	ON	Analog output in operation
		OFF	Analog output switched off
	AOZS	....	Scale the analog output - start value (e.g. 0 bar = 4 mA)
	AOFS		Scale the analog output - end value (e.g. 400 bar = 20 mA)
DISP1...DISP2			**Display menu**
	MODE	STND	Display channel 1 resp. channel 2
		DIFF	Display difference between channel 1 and ch. 2 (ch. 1 – ch. 2)
	UTXT	ABCD	Enter the measuring unit as text
	DAMP	0,0s..9,9 s	Damping of the displayed measuring value in seconds
	OFFS	....	Measuring value -Offset, means shifting the display range
	CUT	....	Cut-Off, means signal-surpression within the cut-off range
	BGZS	....	Scale the bargraph - start value
	BGFS	....	Scale the bargraph - end value
PEAK			**Peakholding menu**
	MIN	....	Display the peak value „Min“
	CLRM	NO	no deletion
		YES	delete „Min“-value memory
	MAX	....	Display the peak value „Max“
	CLRX	NO	no deletion
		YES	delete „Max“-value memory
CAL1...CAL2			**Calibration menu**
	DECP	0000..0,000	Determination of the decimal-point for the measuring value
	ZSCL	....	Scale the measuring-value indication - start value
	FSCL	....	Scale the measuring-value indication - end value
	CODE		Calibration of the manufacturer

Attention:
At first the peak value menu for channel 1 in display 1 is indicated, then for channel 2 in display 2.

4. Operation

After the unit is switched on, the unit starts an automatic self-test.
The device is menu operated and configured by the three keys on the front.
With the „M“ key (= mode) you change between the operation / indicating level to the dialog values and the adjusted / actual values. With the keys („⇑“ = up) and („⇓“= down) you change between the dialog values in the menu or change the values / functions in the menus.

A change of any configuration starts always with the M-Mode and indicated by the flashing cursor. After a change has been made with the up- resp. down-key the M-mode key must be pressed to confirm each configuration; to set numbers, each digit has to be confirmed with the M-Mode before adjusting the next one. By confirming the last digit the new configuration will be stored in the memory.
Pushing the down key at the end of the sub-menu the software will switch automatically to the main-menu.

If the dialog is not continued within two minutes the device automatically returns to the measuring mode.

5. Key lock

Activating the („⇑“ = up) and („⇓“ = down) keys together for more than 5 seconds will block any changings in all menues; shown by „LOCK“ in the display.
In this mode, all configuration values can be checked only, but not changed.

Repeating this action will unlock the configuration menu and shown by „UNLK“ in the display.

6. Error handling

The internal self-check software will monitor the proper functioning of the unit. When any of the following failures will occur, the flashing display will indicate the following text:

Display	Error	Cause
max	Positive excess of the measuring range Channel 1 (indicated in display 1) positive excess of the measuring range Channel 2 (indicated in display 2)	The measured value exceeds the max. of the range
min	Negative excess of the measuring range Channel 1 (indicated in display 1) negative excess of the measuring range Channel 2 (indicated in display 2)	The measured value is lower than the min. of the range
anao	Failure of the analog output 1 (indicated in display 1) Failure of the analog output 2 (indicated in display 2)	Output loop is not closed or short circuited
data	Stored data failure (EEProm) (internal)	Memory failure
prog	Processor failure (internal)	Microcontroller failure
cal	Calibration error channel 1 (internal) (indicated in display 1) Calibration error channel 2 (internal) (indicated in display 2)	Calibration values are wrong

Menu Structure UAD 3 - V3